

# Getting Renewables Right: Biomass

## Safeguards unlock the potential of biomass while protecting the environment



Renewable biomass can either be part of the solution to global warming, or part of the problem. **H.R. 2454, The American Clean Energy and Security Act (ACES), helps promote responsible sourcing of biomass from forests, crops, and waste streams-protecting sensitive ecosystems and benefiting local economies.** Unfortunately, efforts to fight climate change and protect communities and the environment are threatened by those seeking to strip existing biomass safeguards. Please voice your support for biomass safeguards to Chairman Waxman, Chairman Rahall and Speaker Pelosi before it's too late.



### **Don't Rob Peter to Pay Paul**

The American Clean Energy and Security Act contains provisions to encourage renewable energy development. The goal is to jumpstart a domestic biomass industry that generates electricity and liquid biofuels with significantly less dangerous carbon pollution footprints than conventional fossil fuels. Sounds like a win-win proposition. However, powerful industries are seeking to strip key safeguards that **ensure biomass development actually reduces heat-trapping gasses** and is safe for sensitive habitats and threatened species. Degrading natural areas under the guise of "renewable" energy robs Americans of the many valuable benefits our forests and grasslands provide while profiting a select few.

### **What is biomass?**

Biomass refers to plants and plant-derived material that can provide renewable energy for our future. If sourced and produced properly, bioenergy can have low carbon footprints- reducing our impact on the planet while creating economic opportunity. Feedstock qualifying as *renewable biomass* under ACES includes:

- ▶ All crops and waste from agriculture land in cultivation, cleared or fallow and nonforested on January 1, 2009;
- ▶ All crops and waste from pasture land that was nonforested on January 1, 2009;
- ▶ Waste material, including separated yard waste, construction and demolition waste and rights-of-way trimmings;
- ▶ Residues and byproducts from milled logs;
- ▶ Trees, brush and other material removed as part of selected emergency preparedness and infrastructure protection projects;
- ▶ Trees, brush, slash, logging residue, energy crops, pulpwood and other vegetative matter, and dead or severely damaged trees within 5 years of a fire or natural disaster, and badly infested trees (from non Federal and not high conservation priority land);
- ▶ Trees, wood, brush, thinnings, chips, slash, invasive species and pre-commercial thinnings from select National Forest System and other public lands, including material removed as part of hazardous fuel reduction and infestation mitigation efforts



## **Biomass: Not All Energy Is Created Equal**

From a climate perspective alone, without appropriate safeguards and full lifecycle greenhouse gas (GHG) emissions analyses, biomass can make global warming worse. Depending on where materials are sourced and how they are produced, biomass can provide good results, or increase carbon pollution. This applies to both direct emissions caused by clearing carbon-rich forests for feedstock as well as indirect effects on land use caused when forests are cleared to replace biomass crops dedicated to energy production.

Additionally, where and how biomass is sourced and produced directly affects ecosystem health and can alter landscapes, habitat and communities. Safeguarding sensitive wildlands from becoming feedstock for biomass protects countless species threatened by climate change, as well as communities dependent upon the clean air and water these places provide.



## **Isn't Biomass "Carbon Neutral"?**

Some argue that bioenergy is "carbon neutral" because carbon dioxide released during the burning of materials would have been released eventually through natural dieback and decay. However, these arguments ignore the fact that the carbon in woody biomass could have been stored in a non-harmful form for hundreds of years. In fact, there is three times as much carbon stored in our lands than in the atmosphere and we rely on our forests and grasslands to continue to sequester carbon as part of our plans to stabilize the climate. Releasing the carbon stored in these lands into the atmosphere to contribute to global warming now is not a neutral act. Similarly, it can take centuries to sequester as much carbon dioxide back into a forest ecosystem as was released by logging and burning existing trees.

Biomass claims of carbon neutrality often overlook the fossil fuels needed to harvest and burn the material, as well as ignore the carbon lost when land is converted from a natural forest to an energy plantation. Greenhouse gas emissions from harvesting biomass are not under the cap-and-trade sections of the ACES bill, so the only way to minimize potential impacts of biomass energy on the atmosphere and environment is through the regulations governing the harvest.



### **Forests: Victim & Solution**

Over fifteen percent of current U.S. CO<sub>2</sub> emissions are absorbed by our forests and other vegetation,<sup>1</sup> but we are in danger of losing that important buffer. Healthy wildlands also provide important natural services including cleaning the water we drink, and contribute to local economies. For example, outdoor recreation alone contributes \$730 billion to our economy every year.<sup>1</sup> Proper biomass safeguards ensure the biomass development does not lead to land use change and forest loss—protecting these carbon sinks and conserving working forestlands and unfragmented wildlands for all their public benefits.

Current land-use and forestry practices in the U.S. remove a net 884 million metric tons of CO<sub>2</sub> from the atmosphere each year—more than is emitted annually by the entire U.S. fleet of passenger cars.<sup>1</sup> Protecting older forests is a particularly key component of addressing global warming since these ecosystems are capable of storing vast amounts of carbon for long periods of time. Unsustainable biomass harvesting has a dual impact on global warming: it increases the amount of carbon pollution in the air and decreases nature's ability to absorb carbon dioxide.



## **Putting Biomass on the Right Track**

Balancing the potential for biomass to serve as an engine for clean, sustainable economic growth against its potential to worsen carbon emissions hinges on two factors:

- *how “renewable biomass” is defined, and*
- *if biomass is subject to lifecycle greenhouse gas analyses.*

The definition for “renewable biomass” in the American Clean Energy and Security Act, ***allows for a host of feedstocks to qualify for incentives, while protecting our most sensitive and important landscapes.*** The definition prevents the conversion of naturally regenerating forests on non-federal lands and safeguards Wilderness areas, Wilderness Study Areas, old growth and mature forests, Wild and Scenic River corridors, and other high-priority conservation areas—landscapes that hold special ecological, cultural and historic values. In the face of a warming world, these areas also serve as critical habitat to species struggling to cope with increased temperatures, drought and other disturbances brought on by climate change. However, unsustainable sourcing of biomass threatens both private and public lands. We lose the equivalent of two Rhode Islands’ worth of open space every year due to development across the U.S. and the numbers are not getting better: more than 50 million acres of non-federal forests are projected to be converted to urban and developed uses in the next 50 years.<sup>1</sup> The areas protected in ACES’ renewable biomass definition safeguard our most valuable lands so they can continue to serve future generations as vibrant ecosystems. Stripping these protections will open up the continent’s oldest forests and treasured landscapes to special interests.

***Subjecting biomass to lifecycle greenhouse gas analyses is absolutely critical*** to ensuring we realize potential carbon pollution reductions. The Energy Independence and Security Act of 2007 (Public Law No: 110-140) stipulates that fuels from biomass must undergo a cradle-to-grave carbon footprint analysis, including so-called indirect land effects – or the impacts caused as worldwide markets adjust to ramped up biomass harvesting. This impact on land use is a primary source of emissions associated with biofuels—which is exactly why special interests are fighting to keep the public in the dark by stripping indirect land use change analyses from most biofuel regulations.



## **Planet vs. Profits = False Choice**

Those seeking to strip safeguards from biomass provisions tout a false choice between the environment and jobs. Don’t be fooled, ***the American Clean Energy and Security Act allows for wide***

***expansion of biomass development, bringing economic opportunity to communities across the country***—while protecting our nation’s most important and sensitive ecosystems.

The biomass safeguards within the American Clean Energy and Security Act incentivize the production of plentiful bioenergy while preserving natural forests, native grasslands, critical wildlife habitat, and our most sensitive and cherished public lands. Without proper safeguards, biomass production can harm the climate, with economic and environmental downsides that rise dramatically as the footprint of projects increases. In order to create sustainable jobs and harness the full potential of biomass as a solution to climate change, support the biomass definition within ACES and back the EPA’s indirect land use change analyses.

### ***For more information, please contact:***

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<sup>1</sup> USDA Forest Service. *Interim Update of the 2000 Renewable Resources Planning Act Assessment*. 2007.